

NATURAL RESOURCES CONSERVATION SERVICE
MONTANA CONSERVATION PRACTICE STANDARD

PREScribed FORESTRY (ACRE)

CODE 409

DEFINITION

Manage forested areas for forest health, wood and/or fiber, water, recreation, aesthetics, wildlife habitat and plant biodiversity.

the owner's objectives as well as perpetuating a sustainable forest ecosystem based on ecological parameters such as forest types, soil types, past harvest history, natural community types and successional trends.

PURPOSE

- Maintain or improve forest health
- Protect soil quality and condition
- Maintain or enhance water quality and quantity
- Maintain or improve forest productivity
- Maintain or improve plant diversity
- Improve aesthetic and recreational values
- Improve wildlife habitat
- Achieve or maintain a desired understory plant community for forest products, grazing, and browsing.

A forest prescription **is an** element of a more comprehensive conservation plan. **It** shall recognize **and be compatible with** other requirements of the conservation plan.

The prescription should include:

- 1) An inventory of the existing forest condition
- 2) Description of desired forest condition (using, **where available**, ecological site descriptions as guides).

The prescription shall be developed for a minimum management period of 10 years.

Describe and give rationale for selection of silvicultural system(s) including ecological and economic considerations.

Planned activities shall be examined collectively. Coordinate and time activities to optimize the stated purposes of conservation practices. Activities are not limited to conservation practices **and may include other activities essential to implementation of the prescription. Comply with other practice standards as needed to implement the prescription.**

CONDITIONS WHERE PRACTICE APPLIES

- On all forest land
- On land capable and suited to growing trees.

Planned activities shall lead to a **silvicultural system with appropriate** age classes suited to forest conditions, landowner objectives, **economics** and local ecosystems.

CRITERIA

General Criteria Applicable to All Purposes

Activities to achieve the intended purpose(s) shall be based on a forest prescription that addresses

Provide a schedule of activities over at least a 5 year period.

NRCS, MT
January 2007

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard contact the Natural Resources Conservation Service.

NOTE: This type of font (**AaBbCcDdEe 123..**) indicates NRCS National Standards.
This type of font (**AaBbCcDdEe 123..**) indicates Montana Supplement.

Additional Criteria to Protect Soil Quality and Condition

Develop **and implement** written guidelines to protect the soil resource during and after harvest operations, site preparation for planting and **other forestry operations**.

Control or prevent erosion. Soil loss will not exceed allowable average annual soil loss (T) as defined by current, approved erosion prediction technology.

Maintain adequate cover to control soil erosion. **Cover may include logging debris as well as vegetative cover.**

Seed disturbed areas for erosion and sediment control. Use proper grazing that will not adversely impact new seeding of erosion control species.

Prevent gully formation.

Minimize impacts on landscape when placing roads, harvest trails and landings.

Avoid soil compaction during all activities occurring in the forest.

Use **other Field Office Technical Guide (FOTG), Section IV – conservation practices when needed, such as, Forest Trails and Landings - Code 655, Critical Area Planting - Code 342 and Filter Strip - Code 393, to control or prevent soil erosion.**

Additional Criteria to Maintain or Enhance Water Quality and Quantity

Develop **and implement** written guidelines to maintain **or enhance** the quality and quantity of water flowing from and through **the forest management unit**.

Assess and manage the impacts of forest activities on water **quality and quantity**. **Develop and implement** written guidelines that minimize the potential adverse effects of forestry operations.

Ensure road/trails/landing locations, design, construction maintenance, and vegetation reestablishment **does not impair water quality**.

Follow **Field Office Technical Guide (FOTG), Section IV – practice standards Filter Strip - Code 393, and/or Riparian Forest Buffer - Code 391 to install, operate, and maintain filter strips or buffers to remove or reduce the transportation of sediment or**

organic matter into streams, lakes or other sensitive areas.

Develop **and implement** written guidelines for stream crossings. **Include information on when, where, what types and size**. Avoid altering stream courses and drainage patterns.

Additional Criteria to Maintain or Improve Forest Productivity and Health

Sustainable harvest levels shall be based on one or more of the following:

- Clearly documented growth and regeneration data
- Site index models (**if available**)
- Site productivity or culmination of mean annual increment (CMAI) growth
- Desired future condition
- Consideration of cyclical and natural disturbances.

Develop written guidelines on protecting the residual forest, including regeneration, during and following harvest operations.

Identify tree and shrub species to be retained.

Follow established guidelines for spacing, density, size class, number and amounts of trees and understory species to be retained.

Ensure spacing of residual trees is appropriate to their size and species.

Identify pest problems, including insects, diseases, mammals and invasive/noxious plants, and develop **and implement** management guidelines.

Use **integrated pest management practices, such as maintaining a diversity of plants that discourages pest outbreaks, whenever possible.**

Additional Criteria to Maintain or Improve Plant Diversity

Assess current **plant diversity of all forest types on the management unit**. Include descriptions of the ecological processes such as disturbance regimes, unique natural communities such as old-growth,

rare and imperiled plant species **and plant communities**.

Designate and delineate areas that contain these unique communities and develop written guidelines addressing the management of these special plant species and their communities.

Native plant species shall be inventoried and managed for vertical and horizontal structural complexity, and understory species diversity.

Develop and implement written guidelines addressing the management of the native plant species and their communities. Include invasive species control and native plant species/community restoration plans if needed.

Develop and implement written guidelines that minimize the effects of harvesting activities, such as construction of roads, trails and landings, on plant diversity.

Vary the criteria according to state, federal or local requirements.

Additional Criteria to Improve Aesthetic and Recreational Values

Develop and implement written guidelines for those practices that improve the aesthetic and recreational values indicated as important by the landowner. Include measures that will promote eco-tourism and recreation, including hunting and fishing.

Select and manage plant materials adapted to the soil and climatic conditions and that fulfill a specific aesthetic or recreational need.

Additional Criteria to Improve Wildlife Habitat

Develop and implement written guidelines to identify, protect, and/or enhance forest habitat types used by federally listed and endangered species.

Develop written guidelines to recognize and maintain forest resources for terrestrial and aquatic life.

Identify and develop specific management guidelines for habitat protection areas, including riparian buffers, critical habitats and those with special needs.

Develop and implement management strategies and prescriptions that provide for targeted species biological and ecological needs.

Coordinate forest and wildlife management objectives and activities. **Minimize the effects of harvesting on wildlife habitat.**

Additional Criteria to Achieve or Maintain a Desired Understory Plant Community for Forest Products, Grazing, and Browsing

Develop **and implement** written guidelines for inventorying plants, monitoring plant populations and protecting the forest ecology while allowing the sustainable harvest of non-timber products.

Assess the impacts of timber production and harvest on the non-timber products.

Space trees properly to produce desired forage production, increase desirable woody plants for browsing, and provide conditions favorable for understory forest products.

CONSIDERATIONS

Consider adjacent and cumulative land use effects.

Consider social effects of decisions.

Consider multiple resource use of forest land including, but not limited to, hunting, fishing, bird-watching, snowmobiling, cross-country skiing and other eco-tourism type activities.

Assess potential landowner and user liability in the development of specifications for this practice.

PLANS AND SPECIFICATIONS

Plans and specifications shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose(s).

The following components shall be included in the forest management plan **and specifications**:

- Statement of landowner's goals and objectives. **Identify why the practice is needed and feasible.**
- **An environmental assessment of the planned management activities, including regeneration/ harvest strategies and guidelines for addressing the potential impacts on soil, water, air, plant, animal and human resources.**

- **An alternatives narrative that identifies and describes several methods that could be used to address the resource issue. Also identifying the landowners selected method.**
- Description of ecological and silvicultural systems and rationale for selection of silvicultural system.
- Inventory of the existing forest condition and a description of desired forest condition.
- Location of roads, property boundaries, protected areas.
- Maps of forest and soil types. **Map of site with location of practice on the map.**
- **The Montana Prescribed Forestry practice job sheet and specification.**
- **Operation and maintenance instructions.**

OPERATION AND MAINTENANCE

Provide an operations and maintenance plan that contains information on the frequency, intensity and description of monitoring and evaluation of the current prescriptions.

Maintain a yearly summary of forest management activities and records of yield for all forest products harvested, including non-timber resources. Also describe the condition of the forest (stand composition and structure), including regeneration, observed changes in flora and fauna (habitat conditions), and other impacts of harvesting and other operations.

Conduct periodic inspections during and after treatment activities to ensure that the purposes are achieved and resource damage is minimized, e.g., post harvest inspection, assessment of insects, disease and other pests, storm damage, and damage by trespass. The results of the inspections shall determine the need for additional treatment under this practice.

Review timetables, schedules and coordination actions periodically, **at least once per year**, and modify as needed.

REFERENCES

Forest Stewardship Council-U.S. 2001. U.S. Regional Standards.
<http://www.fscus.org/documents/index.php>